

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims.

LISTING OF CLAIMS:

Claims 1-39. Cancelled.

Claim ~~40~~¹. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment, which recognizes a 150 kDA *T. equigenitalis* protein.

Claim ~~41~~⁷. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment according to claim ~~40~~¹, in combination with at least one antibody or Fv, Fab or F(ab')² fragment thereof which recognize *T. equigenitalis* proteins selected from the group consisting of *T. equigenitalis* proteins of 120 kDA, 52.7 kDA and 22 (LPS) kDA.

²³
Claim ~~42~~. (Previously Presented) An isolated monoclonal antibody obtained by a process comprising:

fusing non-secreting murine myeloma cells with spleen cells
from mice immunized against an inactivated strain of the
species *T. equigenitalis* or extract(s) of such a strain,
cloning and selecting according to the capacity of their culture
supernatant to recognize a 150 kDA *T. equigenitalis*
protein,
recovering the required monoclonal antibody, and
optionally purifying said monoclonal antibody.

²
Claim ~~43~~. (Previously Presented) A method of obtaining a monoclonal antibody according to claim ~~40~~, comprising:

fusing non-secreting murine myeloma cells with spleen cells
from mice immunized by means of a strain of the species
T. equigenitalis or extract(s) from such a strain,
screening hybridomas whose culture supernatants exhibit a
positive reaction with a 150 kDA *T. equigenitalis* protein
or a fragment thereof,
selecting by cloning the hybridomas with respect to their
reactivity, in relation to *T. equigenitalis*,
recovering the monoclonal antibody, and
optionally purifying said monoclonal antibody.

³
Claim ~~44~~. (Previously Presented) A strain of hybridoma, which secretes a monoclonal antibody according to claim ~~40~~.

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Claim 45. (Currently Amended) A method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

bringing the specimen or the culture to be analyzed, which may contain *T. equigenitalis*, into contact with an effective quantity of a monoclonal antibody or Fv, Fab or F(ab')² fragment thereof according to claim 40, under conditions permitting a reaction of the antigen-antibody type, and detecting any antigen/antibody type reaction product formed
~~product formed in a reaction of the antigen-antibody type,~~ wherein said product is indicative of the presence of a bacterium of the species *T. equigenitalis*.

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Claim 46. (Currently Amended) A method of diagnosis of an infection by *Taylorella equigenitalis* (*T. equigenitalis*) comprising:

(a) bringing a monoclonal antibody or fragment thereof according to claim 40, into contact with a biological sample, wherein said sample may contain *T. equigenitalis* antigen, under conditions permitting an antigen-antibody reaction, and

(b) detecting any antigen/antibody type reaction product formed
~~product formed in a reaction of the antigen-antibody type~~

in said sample between the antibody or fragment of (a)
and a *T. equigenitalis* antigen,
wherein said product is indicative of a diagnosis for *T. equigenitalis*
infection.

¹²
Claim ~~47~~. (Previously Presented) The method according to claim ¹¹~~45~~, further
comprising blocking the non antigen-antibody reactions.

¹⁶
Claim ~~48~~. (Previously Presented) A kit for application of a method of
identification of a bacterium of the species *Taylorella equigenitalis*
(*T. equigenitalis*) in a specimen or in a culture comprising:
a monoclonal antibody or fragment according to claim ¹~~40~~,
a reagent for detecting the intended immunologic reaction,
optionally, a reagent for blocking the non antigen-antibody
reactions, and
instructions for use.

Claim 49. Cancelled.

¹⁷
Claim ~~50~~. (Previously Presented) A kit according to claim ¹⁶~~48~~, wherein said
reagent for carrying out the intended immunologic reaction is selected
from the group consisting of markers and buffers.

¹⁸
Claim ~~51~~. (Previously Presented) A kit according to claim ¹⁶~~48~~, wherein a reagent for blocking the non antigenic-antibody reaction is included and said reagent is mouse serum.

¹³
Claim ~~52~~. (Previously Presented) The method according to claim ¹²~~47~~, wherein the non antigen-antibody reaction is blocked by saturation of the specimen obtained by means of a serum from which anti-*T. equigenitalis* antibodies have been removed.

¹⁵
Claim ~~53~~. (Previously Presented) The method according to claim ¹⁴~~46~~, further comprising blocking the non antigen-antibody reactions.

¹⁹
Claim ~~54~~. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment according to claim ¹~~40~~, in combination with antibodies or Fv, Fab or F(ab')² fragments thereof which recognize *T. equigenitalis* proteins of 120 kDA, 52.7 kDA and 22 (LPS) kDA.

⁴
Claim ~~55~~. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment according to claim ¹~~40~~, in combination with an antibody or Fv, Fab or F(ab')² fragment thereof which recognizes a 120 kDA *T. equigenitalis* protein.

⁵
Claim ~~56~~. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment according to claim ¹~~40~~, in combination with an antibody or Fv, Fab or F(ab')² fragment thereof which recognizes a 52.7 kDA *T. equigenitalis* protein.

⁶
Claim ~~57~~. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment according to claim ¹~~40~~, in combination with an antibody or Fv, Fab or F(ab')² fragment thereof which recognizes a 22 (LPS) kDA *T. equigenitalis* protein.

³¹
Claim ~~58~~. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment according to claim ²³~~42~~, in combination with at least one antibody or Fv, Fab or F(ab')² fragment thereof which recognizes a *T. equigenitalis* protein selected from the group consisting of *T. equigenitalis* proteins of 120 kDA, 52.7 kDA and 22 (LPS) kDA.

³⁵
Claim ~~59~~. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment according to claim ²³~~42~~, in combination with antibodies or Fv, Fab or F(ab')² fragments thereof which recognize *T. equigenitalis* proteins of 120 kDA, 52.7 kDA and 22 (LPS) kDA.

²⁴
Claim ~~60~~. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment according to claim ²³~~42~~, in combination with an antibody or Fv, Fab or F(ab')² fragment thereof which recognizes a 120 kDA *T. equigenitalis* protein.

²⁵
Claim ~~61~~. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment according to claim ²³~~42~~, in combination with an antibody or Fv, Fab or F(ab')² fragment thereof which recognizes a 52.7 kDA *T. equigenitalis* protein.

²⁶
Claim ~~62~~. (Previously Presented) An isolated monoclonal antibody or its Fv, Fab or F(ab')² fragment according to claim ²³~~42~~, in combination with an antibody or Fv, Fab or F(ab')² fragment thereof which recognizes a 22 (LPS) kDA *T. equigenitalis* protein.

²⁷
Claim ~~63~~. (Previously Presented) A strain of hybridoma, which secretes the monoclonal antibody according to claim ²³~~42~~.

⁸
Claim ~~64~~. (Currently Amended) A method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

bringing the specimen or the culture to be analyzed, which may
contain *T. equigenitalis*, into contact with an effective

quantity of the monoclonal antibodies or Fv, Fab or
F(ab')² fragments thereof according to claim ⁷~~41~~, under
conditions permitting a reaction of the antigen-antibody
type, and

detecting any antigen/antibody type reaction product formed
~~product formed in a reaction of the antigen-antibody type,~~
wherein said product is indicative of the presence of a bacterium of the
species *T. equigenitalis*.

²⁸
Claim ~~65~~.

(Currently Amended) A method of identification of a bacterium of the
species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a
culture comprising:

bringing the specimen or the culture to be analyzed, which may
contain *T. equigenitalis*, into contact with an effective
quantity of the monoclonal antibody or Fv, Fab or F(ab')²
fragment thereof according to claim ²³~~42~~, under conditions
permitting a reaction of the antigen-antibody type, and
detecting any antigen/antibody type reaction product formed
~~product formed in a reaction of the antigen-antibody type,~~
wherein said product is indicative of the presence of a bacterium of the
species *T. equigenitalis*.

²⁰
Claim ~~66~~.

(Currently Amended) A method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

bringing the specimen or the culture to be analyzed, which may contain *T. equigenitalis*, into contact with an effective quantity of the monoclonal antibodies or Fv, Fab or F(ab')² fragments thereof according to claim ¹⁹~~64~~, under conditions permitting a reaction of the antigen-antibody type, and

detecting any antigen/antibody type reaction product formed

~~product formed in a reaction of the antigen-antibody type,~~
wherein said product is indicative of the presence of a bacterium of the species *T. equigenitalis*.

³²
Claim ~~67~~.

(Currently Amended) A method of identification of a bacterium of the species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a culture comprising:

bringing the specimen or the culture to be analyzed, which may contain *T. equigenitalis*, into contact with an effective quantity of the monoclonal antibodies or Fv, Fab or F(ab')² fragments thereof according to claim ³¹~~58~~, under conditions permitting a reaction of the antigen-antibody type, and

detecting any antigen/antibody type reaction product formed
~~product formed in a reaction of the antigen-antibody type,~~
wherein said product is indicative of the presence of a bacterium of the
species *T. equigenitalis*.

³⁶
Claim ~~68~~. (Currently Amended) A method of identification of a bacterium of the
species *Taylorella equigenitalis* (*T. equigenitalis*) in a specimen or in a
culture comprising:

bringing the specimen or the culture to be analyzed, which may
contain *T. equigenitalis*, into contact with an effective
quantity of the monoclonal antibodies or Fv, Fab or
F(ab')² fragments thereof according to claim ³⁵~~59~~, under
conditions permitting a reaction of the antigen-antibody
type, and

detecting any antigen/antibody type reaction product formed
~~product formed in a reaction of the antigen-antibody type,~~
wherein said product is indicative of the presence of a bacterium of the
species *T. equigenitalis*.

⁹
Claim ~~69~~. (Currently Amended) A method of diagnosis of an infection by
Taylorella equigenitalis (*T. equigenitalis*) comprising:

(a) bringing a monoclonal antibody or fragment thereof
according to claim ⁷~~41~~, into contact with a biological

sample, wherein said sample may contain *T. equigenitalis* antigen, under conditions permitting an antigen-antibody reaction, and

- (b) detecting any antigen/antibody type reaction product formed
~~product formed in a reaction of the antigen-antibody type~~
in said sample between the antibody or fragment of (a)
and a *T. equigenitalis* antigen,

wherein said product is indicative of a diagnosis for *T. equigenitalis* infection.

²⁹
Claim ~~20~~.

(Currently Amended) A method of diagnosis of an infection by
Taylorella equigenitalis (*T. equigenitalis*) comprising:

- (a) bringing a monoclonal antibody or fragment thereof
according to claim ²³~~42~~, into contact with a biological
sample, wherein said sample may contain *T. equigenitalis*
antigen, under conditions permitting an antigen-antibody
reaction, and
- (b) detecting any antigen/antibody type reaction product formed
~~product formed in a reaction of the antigen-antibody type~~
in said sample between the antibody or fragment of (a)
and a *T. equigenitalis* antigen,

wherein said product is indicative of a diagnosis for *T. equigenitalis* infection.

²¹
Claim ~~71~~. (Currently Amended) A method of diagnosis of an infection by

Taylorella equigenitalis (*T. equigenitalis*) comprising:

- (a) bringing a monoclonal antibody or fragment thereof
according to claim ¹⁹~~54~~, into contact with a biological
sample, wherein said sample may contain *T. equigenitalis*
antigen, under conditions permitting an antigen-antibody
reaction, and
- (b) detecting any antigen/antibody type reaction product formed
~~product formed in a reaction of the antigen-antibody type~~
in said sample between the antibody or fragment of (a)
and a *T. equigenitalis* antigen,

wherein said product is indicative of a diagnosis for *T. equigenitalis*
infection.

³³
Claim ~~72~~. (Currently Amended) A method of diagnosis of an infection by

Taylorella equigenitalis (*T. equigenitalis*) comprising:

- (a) bringing a monoclonal antibody or fragment thereof
according to claim ³¹~~58~~, into contact with a biological
sample, wherein said sample may contain *T. equigenitalis*
antigen, under conditions permitting an antigen-antibody
reaction, and

- (b) detecting any antigen/antibody type reaction product formed
~~product formed in a reaction of the antigen-antibody type~~
in said sample between the antibody or fragment of (a)
and a *T. equigenitalis* antigen,

wherein said product is indicative of a diagnosis for *T. equigenitalis*
infection.

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Claim ~~73~~.

(Currently Amended) A method of diagnosis of an infection by
Taylorella equigenitalis (*T. equigenitalis*) comprising:

- (a) bringing a monoclonal antibody or fragment thereof
according to claim ~~58~~³⁵, into contact with a biological
sample, wherein said sample may contain *T. equigenitalis*
antigen, under conditions permitting an antigen-antibody
reaction, and
- (b) detecting any antigen/antibody type reaction product formed
~~product formed in a reaction of the antigen-antibody type~~
in said sample between the antibody or fragment of (a)
and a *T. equigenitalis* antigen,

wherein said product is indicative of a diagnosis for *T. equigenitalis*
infection.

¹⁰
Claim ~~74~~. (Currently Amended) A kit for application of a method of
identification of a bacterium of the species *Taylorella equigenitalis*
(*T. equigenitalis*) in a specimen or in a culture comprising:
the a monoclonal antibody or fragment ~~antibodies or fragments~~
according to claim ~~41~~,
reagents for detecting the intended immunologic reaction,
optionally, reagents for blocking the non antigen-antibody
reactions, and
instructions for use.

³⁰
Claim ~~75~~. (Previously Presented) A kit for application of a method of
identification of a bacterium of the species *Taylorella equigenitalis*
(*T. equigenitalis*) in a specimen or in a culture comprising:
²³
a monoclonal antibody or fragment according to claim ~~42~~,
reagents for detecting the intended immunologic reaction,
optionally, reagents for blocking the non antigen-antibody
reactions, and
instructions for use.

²²
Claim ~~76~~. (Currently Amended) A kit for application of a method of
identification of a bacterium of the species *Taylorella equigenitalis*
(*T. equigenitalis*) in a specimen or in a culture comprising:
the a monoclonal antibody or fragment ~~antibodies or fragments~~
according to claim ¹⁹~~54~~,
reagents for detecting the intended immunologic reaction,

optionally, reagents for blocking the non antigen-antibody
reactions, and
instructions for use.

³⁴
Claim ~~77~~.

(Currently Amended) A kit for application of a method of
identification of a bacterium of the species *Taylorella equigenitalis*
(*T. equigenitalis*) in a specimen or in a culture comprising:

the a monoclonal antibody or fragment ~~antibodies or fragments~~
according to claim ³¹~~58~~,

reagents for detecting the intended immunologic reaction,
optionally, reagents for blocking the non antigen-antibody
reactions, and
instructions for use.

³⁸
Claim ~~78~~.

(Currently Amended) A kit for application of a method of
identification of a bacterium of the species *Taylorella equigenitalis*
(*T. equigenitalis*) in a specimen or in a culture comprising:

the a monoclonal antibody or fragment ~~antibodies or fragments~~
according to claim ³⁵~~59~~,

reagents, for detecting the intended immunologic reaction,
optionally, reagents for blocking the non antigen-antibody
reactions, and
instructions for use.

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Claims 79-83 Cancelled.